

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/532,275

Examiner: Christopher S. Bobish

Applicant: Mark Christopher Hope

Art Unit: 3746

Title: Improvements In Dry Pumps

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir/Madam:

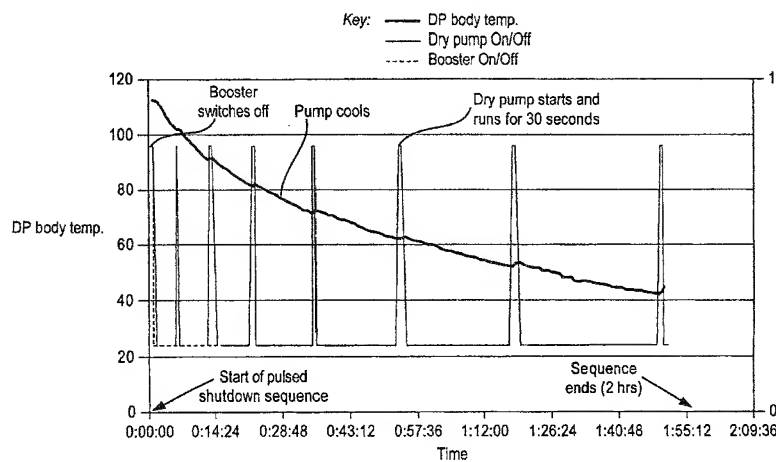
Applicant appeals the final rejection of pending claims 6-14 and 16, in which claims 6 and 16 are rejected as being anticipated by U.S. Patent No. 5,961,291 to Sakagami et al. (hereinafter referred to as "Sakagami") under 35 U.S.C. § 102, and claims 7-14 are rejected as being unpatentable over Sakagami under 35 U.S.C. § 103(a). Applicant respectfully submits that the final rejection incorrectly applies the legal standard in rejecting independent claim 6 under section 102, and Sakagami does not anticipate claim 6 as a matter of fact. Thus, Applicant respectfully requests that claim 6 as well as claims 7-14 and 16 that depend from claim 6 be allowed.

***Background***

Independent claim 6 is directed to a method of reducing the incidence of restart failure in a dry pump. The method comprises a) detecting the cessation of operation of

the pumping mechanism; b) monitoring the temperature of the pumping mechanism after cessation of operation; and c) at at least one pre-selected temperature interval, initiating operating of the pumping mechanism for a fixed time period so as to purge a proportion of contaminant particulate matter present until a predefined temperature is reached or a predefined time limit has passed. As shown in embodiments of the invention as illustrated in Fig. 4 of the present application, the method turns on and off a dry pump alternately until the temperature of the pump body reaches about 40°C. One of the benefits of the method is to evacuate contaminant from the pump as it cools so that when it is cooled to the ambient temperature, there is significantly less particulate contaminant in the pumping mechanism than there would otherwise be. *See, the specification, page 2, 4th paragraph.*

**Fig. 4**



In the final office action dated July 16, 2009, Examiner rejects claim 6 as being anticipated by Sakagami under 35 U.S.C. § 102. Although Examiner acknowledges that Sakagami does not explicitly teach monitoring the temperature of the pumping mechanism after cessation of operation, he asserts that Sakagami must monitor the

temperature in some way, because it teaches to hold the temperature in a certain range during a heating process. *See, pages 4-5.*

***The Issues***

- I. Whether Examiner errs in making an assertion of prior art by drawing an improper inference under 35 U.S.C. § 102.
- II. Whether Sakagami, in fact, fails to anticipate the invention as described in claim 6.

***Discussion***

**I. Examiner errs in asserting that Sakagami teaches “monitoring the temperature of the pumping mechanism after cessation of operation” under 35 U.S.C. § 102.**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Sakagami does not explicitly teach “monitoring the temperature of the pumping mechanism after cessation of operation.” As evident in the office action, Examiner is not able to point to any specific teaching of Sakagami that expressly discloses such language, but instead relies on an inference in making the assertion. *See, pages 4-5.*

However, “monitoring the temperature of the pumping mechanism after cessation of operation” is not inherently described by Sakagami. Examiner asserts that because

Sakagami teaches heating the pump in a certain temperature range, it must imply a step of monitoring the temperature of the pump. *See, pages 4-5.* This is not necessarily true. For example, Sakagami might simply set a heater in a certain temperature range, and let the heater and pump to reach thermal equilibrium. This approach would not require the temperature of the pump to be monitored. Since there are many different ways to heat the pump in a certain temperature range, monitoring the temperature of the pump is not inherent in Sakagami.

In making a prima facie anticipation rejection, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).* When it comes to the teaching of “monitoring the temperature of the pumping mechanism,” Sakagami simply lacks the necessary details as is contained in claim 6.

**II. Sakagami fails to teach “initiating operation of the pumping mechanism... until a predefined temperature is reached or a predefined time limit has passed.”**

Sakagami teaches a method that rocks a magnetically supported shaft in a pump to scrap off particulates clogged between the rotor and stator of the pump. *See, abstract.* As shown in FIG. 10 of Sakagami, after the motor starts, the motor current is compared to a predetermined value to determine if the pump runs properly. If it does not, the motor will stop and start alternately to scrap off the particulates between the rotor and stator. *See, col. 4, lines 19-38.* The rocking motion will stop when the motor current falls below the predetermined value. *Id.*

The invention as described in claim 6 differs from Sakagami at least in that the invention controls the alternate operations based on temperature or time, whereas Sakagami based on current. Nowhere in Sakagami teaches using temperature or time to indicate whether the pump is in an abnormal condition that warrants a rocking motion of the shaft to bring it back to normal. As such, Sakagami cannot anticipate the invention under U.S.C. § 102.

***Conclusion***

As discussed above, independent claim 6 is not anticipated by Sakagami under section 102. Accordingly, claims 7-14 and 16 that depend from claim 6 and include all the limitations recited therein are patentable over the cited reference as well. Thus, Applicant respectfully requests for allowance of all the pending claims.

Respectfully submitted,

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